

Docket: 393551

IN THE CLAIMS

Please amend the claims as follows:

1. (Cancelled)
2. (Currently Amended) A system as in claim ~~14~~, wherein the AC power source provides an AC voltage in a range of about from 10 volts to 500 volts.
3. (Cancelled)
4. (Currently Amended) ~~A system as in claim 3,~~ A system for melting interfacial ice, comprising:
a first electrode embedded into or coated onto an object to be protected from ice formation;
a second electrode, the first electrode and the second electrode defining an interelectrode space between the first electrode and the second electrode,
the first electrode and the second electrode defining an interelectrode distance that separates the first electrode and the second electrode;
an electrical insulator located in the interelectrode space, wherein the insulator comprises a nonconductive rubber windshield wiper blade; and
an AC power source for providing an AC voltage across the first and second electrodes having a frequency greater than 1000 Hz and less than 300 KHz wherein the interfacial ice is melted upon application of the AC voltage.
- 5-6. (Cancelled)
7. (Currently Amended) A system as in claim ~~10~~, wherein the interelectrode distance has a value in a range of about from 50 μm to 500 μm .
8. (Currently Amended) A system as in claim ~~10~~, wherein the interelectrode distance has a value less than 50 μm .
9. (Currently Amended) A system as in claim ~~10~~, wherein the interelectrode

Docket: 393551

distance has a value greater than 500 μm .

10. (Currently Amended) ~~A system as in claim 1,~~ A system for melting interfacial ice, comprising:

a first electrode embedded into or coated onto an object to be protected from ice formation,

wherein the first electrode comprises a layer of conductive glass;

a second electrode, the first electrode and the second electrode defining an interelectrode distance that separates the first electrode and the second electrode; and

an AC power source for providing an AC voltage across the first and second electrodes having a frequency greater than 1000 Hz and less than 300 KHz wherein the interfacial ice is melted upon application of the AC voltage.

11. (Currently Amended) ~~A system as in claim 1,~~ A system for melting interfacial ice, comprising:

a first electrode embedded into or coated onto an object to be protected from ice formation;

a second electrode, the first electrode and the second electrode defining an interelectrode distance that separates the first electrode and the second electrode.

wherein the second electrode comprises a layer of conductive glass; and

an AC power source for providing an AC voltage across the first and second electrodes having a frequency greater than 1000 Hz and less than 300 KHz wherein the interfacial ice is melted upon application of the AC voltage.

12. (Currently Amended) ~~A system as in claim 1,~~ A system for melting interfacial ice, comprising:

a first electrode embedded into or coated onto an object to be protected from ice formation,

wherein the first electrode comprises a transparent conductive metal oxide;

Docket: 393551

a second electrode, the first electrode and the second electrode defining an interelectrode distance that separates the first electrode and the second electrode; and

an AC power source for providing an AC voltage across the first and second electrodes having a frequency greater than 1000 Hz and less than 300 KHz wherein the interfacial ice is melted upon application of the AC voltage.

13. (Cancelled)

14. (Currently Amended) ~~A system as in claim 13~~, A system for melting interfacial ice, comprising:

a first electrode embedded into or coated onto an object to be protected from ice formation,

wherein the first electrode comprises a conductive grid and the conductive grid includes metal strips;

a second electrode, the first electrode and the second electrode defining an interelectrode distance that separates the first electrode and the second electrode; and

an AC power source for providing an AC voltage across the first and second electrodes having a frequency greater than 1000 Hz and less than 300 KHz wherein the interfacial ice is melted upon application of the AC voltage.

15. (Currently Amended) A system as in claim 14, wherein the second electrode comprises a conductive grid.

16. (Cancelled)

17. (Currently Amended) ~~A system as in claim 1~~, A system for melting interfacial ice, comprising:

a first electrode embedded into or coated onto an object to be protected from ice formation;

BEST AVAILABLE COPY

Docket: 393551

a second electrode, the first electrode and the second electrode defining an interelectrode distance that separates the first electrode and the second electrode,

wherein the second electrode comprises a conductive rubber windshield wiper blade; and

an AC power source for providing an AC voltage across the first and second electrodes having a frequency greater than 1000 Hz and less than 300 KHz wherein the interfacial ice is melted upon application of the AC voltage.

18-21. (Cancelled)

22. (New) A system as in claim 10, wherein the AC power source provides an AC voltage in a range of about from 10 volts to 500 volts.

23. (New) A system as in claim 11, wherein the AC power source provides an AC voltage in a range of about from 10 volts to 500 volts.

24. (New) A system as in claim 11, wherein the interelectrode distance has a value in a range of about from 50 μm to 500 μm .

25. (New) A system as in claim 11, wherein the interelectrode distance has a value less than 50 μm .

26. (New) A system as in claim 11, wherein the interelectrode distance has a value greater than 500 μm .

27. (New) A system as in claim 12, wherein the AC power source provides an AC voltage in a range of about from 10 volts to 500 volts.

28. (New) A system as in claim 12, wherein the interelectrode distance has a value in a range of about from 50 μm to 500 μm .

29. (New) A system as in claim 12, wherein the interelectrode distance has a value less than 50 μm .

Docket: 393551

30. (New) A system as in claim 12, wherein the interelectrode distance has a value greater than 500 μm .

31. (New) A system as in claim 17, wherein the AC power source provides an AC voltage in a range of about from 10 volts to 500 volts.